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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/575,424

Applicant(s)

PENG ET AL.

Examiner

JEFFREY D. POPHAM

Art Unit

2437

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

Remarks

Claims 17-32 are pending.

Response to Arguments

1. Applicant's arguments filed 12/29/2008 have been fully considered but they are not persuasive.

Applicant argues that an optical disk is statutory. An optical disk is not statutory by itself, however, and Applicant has provided no supporting arguments to this. An optical disk, such as claimed in claim 17 solely provides non-functional descriptive material (comprising media content and a public key). There is nothing functional even stored on the disk (such as program code). In order to be statutory, there must be functional descriptive material structurally and functionally interrelated to the medium. The optical disk of claim 17 and the like are clearly non-statutory.

Applicant's arguments with respect to claims 17-32 and the prior art have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 17 refers to downloadable content being "played in coordination with the associated stored media content." The specification as originally filed does not have basis for such a limitation. Previously the claims referred to playing a disk in coordination with downloaded content. The application as originally filed uses the word "coordination" 4 times, once in the abstract and 3 times in the claims. Three of the four instances are related to playing the disk in coordination with downloaded content. The final one was original claim 15, which was directed to verifying a playing permission of the optical disk in coordination with network information. As one can see, this is different from the claimed playing of downloadable content in coordination with stored media. It is noted that the claims currently recite playing the stored media content in coordination with downloadable content (such as in claim 17), which has basis in the application as originally filed. Playing of the disk (or, perhaps, media stored on the disk) in coordination or cooperation with downloadable contents will result in playing data already stored on the disk, while playing of the downloadable contents in coordination with media stored on the disk is quite the opposite. However, playing downloadable content in coordination with stored media

content does not have basis in the application as originally filed.

3. Claims 17-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22, for example, states that "the downloaded content is an application program". However, claim 20 refers to playing the downloaded content in coordination with read-out media content. It is entirely unclear how one would go about "playing" an application program.

Claim 24 recites "performing asymmetric cryptography using the public key stored on the optical disk and a private key of the downloaded content." However, when one looks to the written description, it appears as though this public key and private key are the 2 keys of a key pair (Page 7, for example, showing that the private key of the downloaded content and the public key that is stored on the disk are part of the same key pair). One will further note that the control system only has access to the public key retrieved from the optical disk, and never sees the private key. Furthermore, if the control system were to perform asymmetric cryptography operations with both the public key as well as the private key from the same key pair, as claimed, the operations would cancel each other out, since one key would encrypt and the other would decrypt. For purposes of prior art rejection, this has been construed as "performing asymmetric cryptography using the public key stored on the optical disk corresponding to a private key used to encrypt the downloaded content."

Claim 17, for example, refers to playing "downloadable content," however, this content is never actually downloaded or played. It appears as though claim 17 is merely directed to an optical disk comprising stored media content and a public key. Since the claim is directed to an optical disk, anything performed outside the optical disk do not appear to be part of the scope of the claim and are merely intended use. The same goes for claim 32, merely requiring an optical disk with network address information and a public key.

Claims 27 and 28 refer to downloaded content operating or not operating. It is unclear what it means to "operate" or "not operate" downloaded content. If this operation were to be the playing of claim 25, it would be claimed as playing and not operating.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 17-19 and 32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims are directed to "optical disks" comprising non-functional descriptive material. As discussed above, there is no functional descriptive material structurally and functionally interrelated to the medium. Therefore, claims 17-19 and 32 are non-statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17, 18, 20, 22-25, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uranaka (U.S. Patent 6,470,085) in view of Tsumagari (U.S. Patent Application Publication 2004/0126095).

Regarding Claim 17,

Uranaka discloses an optical disk, comprising digital information stored thereon, which is accessed by an optical disk playing system for playing the optical disk, the stored digital information comprising:

Stored media content that is played in coordination with downloadable content associated with the stored media content (Figure 2; and Column 4, line 66 to Column 5, line 42); and

A public key which is used by the optical disk playing system to verify the authenticity of the downloadable content before the associated stored media content is played (Figures 2 and 4; Column 5, lines 20-42; Column 5, line 58 to Column 6, line 5; and Column 15, lines 57-67);

But does not explicitly disclose that the downloadable content is played in coordination with the stored media content.

Tsumagari, however, discloses that downloadable content is played in coordination with stored media content (Paragraphs 43, 106, 116, 131, 156, and 174). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the enhanced content system of Tsumagari into the content usage control system of Uranaka in order to allow the system to download enhanced data to supplement data stored on the optical disk, thereby ensuring that the player can always have the most up-to-date data without requiring a user to obtain a new disk.

Regarding Claim 18,

Uranaka as modified by Tsumagari discloses disk of claim 17, in addition, Uranaka discloses that the public key is stored in a BCA zone of the optical disk (Figures 2 and 4; Column 5, lines 20-42; Column 5, line 58 to Column 6, line 5; and Column 8, lines 34-41).

Regarding Claim 20,

Uranaka discloses an optical disk player comprising:

An optical disk driver unit to read out media content and a public key stored on an optical disk (Column 6, lines 42-54; Column 7, lines 19-33; Column 8, lines 34-41; and Column 12, lines 12-15);

A network interface to download content associated with the read out media content (Column 6, lines 42-58; Column 9, lines 30-46; and Column 9, line 61 to Column 10, line 20); and

A control system to verify the authenticity of the downloaded content using the public key read out from the optical disk before the read out media content is played (Column 5, lines 20-42; Column 5, line 58 to Column 6, line 5; and Column 15, lines 57-67);

But does not explicitly disclose that the downloaded content is played in coordination with the associated with the read out media content.

Tsumagari, however, discloses that the downloaded content is played in coordination with the associated with the read out media content (Paragraphs 43, 106, 116, 131, 156, and 174). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the enhanced content system of Tsumagari into the content usage control system of Uranaka in order to allow the system to download enhanced data to supplement data stored on the optical disk, thereby ensuring that the player can always have the most up-to-date data without requiring a user to obtain a new disk.

Regarding Claim 25,

Claim 25 is a method claim that is broader than player claim 20 and is rejected for the same reasons.

Regarding Claim 22,

Uranaka as modified by Tsumagari discloses the player of claim 20, in addition, Tsumagari discloses that the downloaded content is an application program (Figure 10; and Paragraphs 143 and 167).

Regarding Claim 29,

Claim 29 is a method claim that is broader than player claim 22 and is rejected for the same reasons.

Regarding Claim 23,

Uranaka as modified by Tsumagari discloses the player of claim 22, in addition, Tsumagari discloses that the application program is a Java language application program (Figure 10; and Paragraphs 143 and 167).

Regarding Claim 30,

Claim 30 is a method claim that is broader than player claim 23 and is rejected for the same reasons.

Regarding Claim 24,

Uranaka as modified by Tsumagari discloses the player of claim 20, in addition, Uranaka discloses that the control system verifies the authenticity of downloaded content by performing asymmetric cryptography using the public key stored on the optical disk corresponding to a private key used to encrypt the downloaded content (Column 15, lines 57-67).

Regarding Claim 31,

Claim 31 is a method claim that is broader than player claim 24 and is rejected for the same reasons.

Regarding Claim 32,

Uranaka discloses an optical disk, comprising digital information stored thereon, which is accessed by an optical disk playing system for playing the optical disk, the stored digital information comprising:

Server information that is used by the optical disk playing system to download content for playing the optical disk (Figures 2 and 4; Column 5, lines 20-42; Column 5, line 58 to Column 6, line 5; and Column 15, lines 57-67); and

A public key that is used by the optical disk playing system to verify the authenticity of downloaded content before playing content stored on the optical disk (Figures 2 and 4; Column 5, lines 20-42; Column 5, line 58 to Column 6, line 5; and Column 15, lines 57-67);

But does not explicitly disclose that the server information is a network address or playing the downloaded content in coordination with content stored on the optical disk.

Tsumagari, however, discloses that the server information comprises a network address and playing the downloaded content in coordination with content stored on the optical disk (Paragraphs

39, 43, 106, 116, 131, 156, and 174). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the enhanced content system of Tsumagari into the content usage control system of Uranaka in order to allow the system to download enhanced data to supplement data stored on the optical disk, thereby ensuring that the player can always have the most up-to-date data without requiring a user to obtain a new disk.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uranaka in view of Tsumagari, further in view of Ryan (U.S. Patent 5,754,648).

Uranaka as modified by Tsumagari does not explicitly disclose that the public key is stored in a media content zone of the optical disk.

Ryan, however, discloses that the public key is stored in a media content zone of the optical disk (Column 3, lines 47-67; and Column 8, lines 31-37). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the media security and tracking system of Ryan into the content usage control system of Uranaka as modified by Tsumagari in order to allow the system to provide additional authentication and authorization steps such that a device can ensure that both the disk and device are authentic and authorized for use with each other by using data stored on the optical disk itself and data stored on a magnetic track attached to the disk, thus decreasing the

chance of unauthorized uses thereof, and/or to provide the ability to track use of the media.

7. Claims 21 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uranaka in view of Tsumagari, further in view of Collins (U.S. Patent Application Publication 2002/0073316).

Regarding Claim 21,

Uranaka as modified by Tsumagari does not explicitly disclose that the control system detects whether the downloaded content is integral before verification, wherein the verification will not be executed if the downloaded content is detected to not be integral.

Collins, however, discloses that the control system detects whether the downloaded content is integral before verification, wherein the verification will not be executed if the downloaded content is detected to not be integral (Paragraphs 73-77). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the content authentication and access control system of Collins into the content usage control system of Uranaka as modified by Tsumagari in order to allow the system to detect when errors in the data have occurred, such that data with errors will not be allowed to be processed and only correct data will be processed, and/or to ensure that the data is

Art Unit: 2437

authentic before allowing access to proceed, thereby increasing security of the system by ensuring both integrity and authenticity of the content.

Regarding Claim 26,

Claim 26 is a method claim that is broader than player claim 21 and is rejected for the same reasons.

Regarding Claim 27,

Uranaka as modified by Tsumagari may not explicitly disclose that the downloaded content will not operate if the downloaded content is not authenticated.

Collins, however, explicitly discloses that the downloaded content will not operate if the downloaded content is not authenticated (Paragraphs 73-77). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the content authentication and access control system of Collins into the content usage control system of Uranaka as modified by Tsumagari in order to allow the system to detect when errors in the data have occurred, such that data with errors will not be allowed to be processed and only correct data will be processed, and/or to ensure that the data is authentic before allowing access to proceed, thereby increasing security of the system by ensuring both integrity and authenticity of the content.

Regarding Claim 28,

Uranaka as modified by Tsumagari and Collins discloses the method of claim 27, in addition, Collins discloses that the downloaded content will operate if the downloaded content is authenticated (Paragraphs 73-77).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY D. POPHAM whose telephone number is (571)272-7215. The examiner can normally be reached on M-F 9:00-5:30.

Art Unit: 2437

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey D Popham
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Art Unit 2437

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